

**That Which is Claimed:**

1. A cosmetic or dermatological preparation comprising an active ingredient combination of at least one antioxidant or a derivative thereof and 8-hexadecene-1,16-dicarboxylic acid.

2. A preparation as claimed in claim 1, wherein the at least one antioxidant is selected from the group consisting of imidazoles, peptides, carotenoids,  $\alpha$ -lipoic acid, lipoamide, aurothioglucose, propylthiouracil and other thiols, metal chelators, humic acid, bile acid, bile extracts, bilirubin, biliverdin, unsaturated fatty acids, folic acid, flavenoids, tocopherols, rutinic acid, ferulic acid, butylhydroxytoluene, butylhydroxyanisole, nordihydroguaiaretic acid, nordihydroguaiaretic acid, trihydroxybutyrophenone, kojic acid, uric acid, mannose, zinc and salts thereof, selenium compounds and enzymatic antioxidants.

3. A preparation as claimed in claim 1, wherein the at least one antioxidant is selected from the group consisting of urocanic acid, phytoene, lipoic acid, lipoamide, ferritin, desferal, bilirubin, biliverdin, melanins, ubiquinone, ubiquinol, vitamin C and derivatives thereof, ascorbyl palmitate, magnesium ascorbyl phosphate, ascorbyl acetate, tocopherols and derivatives thereof, uric acid,  $\alpha$ -glucosylrutin, catalase and superoxide dismutase.

4. A preparation as claimed in claim 1, wherein the at least one antioxidant is selected from the group consisting of urocanic acid, lipoic acid, lipoamide, melanins, ubiquinone,  $\alpha$ -tocopherol, uric acid and catalase.

5. A preparation as claimed in claim 1, wherein the at least one antioxidant is present in a concentration of 0.001 to 30% by weight, based on the total weight of the preparation, and does not include vitamin E or derivatives thereof.

6. A preparation as claimed in claim 1, wherein the at least one antioxidant is present in a concentration of 0.05 to 20% by weight, based on the total weight of the preparation, and does not include vitamin E or derivatives thereof.

5

7. A preparation as claimed in claim 1, wherein the at least one antioxidant is present in a concentration of 0.1 to 10% by weight, based on the total weight of the preparation, and does not include vitamin E or derivatives thereof.

10

8. A preparation as claimed in claim 1, wherein the at least one antioxidant is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation, and includes vitamin E or derivatives thereof.

15

9. A preparation as claimed in claim 1, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

20

10. A preparation as claimed in claim 1, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.005 to 8% by weight, based on the total weight of the preparation.

25

11. A preparation as claimed in claim 1, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.05 to 5% by weight, based on the total weight of the preparation.

12. A cosmetic or dermatological preparation comprising an active ingredient combination of  $\alpha$ -lipoic acid and 8-hexadecene-1,16-dicarboxylic acid.

13. The preparation as claimed in claim 12, comprising a plant or animal extract comprising  $\alpha$ -lipoic acid.

14. A preparation as claimed in claim 12, wherein the  $\alpha$ -lipoic acid is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

15. A preparation as claimed in claim 12, wherein the  $\alpha$ -lipoic acid is present in a concentration of 0.01 to 5% by weight, based on the total weight of the preparation.

16. A preparation as claimed in claim 12, wherein the  $\alpha$ -lipoic acid is present in a concentration of 0.1 to 2.0% by weight, based on the total weight of the preparation.

17. A preparation as claimed in claim 12, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

18. A preparation as claimed in claim 12, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.005 to 8% by weight, based on the total weight of the preparation.

19. A preparation as claimed in claim 12, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.05 to 5% by weight, based on the total weight of the preparation.

20. A cosmetic or dermatological preparation comprising an active ingredient combination of carnosine and 8-hexadecene-1,16-dicarboxylic acid.

21. A preparation as claimed in claim 20, comprising a plant or animal extract comprising carnosine.

22. A preparation as claimed in claim 20, wherein the carnosine is  
5 L-carnosine.

23. A preparation as claimed in claim 20, wherein the carnosine is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

10 24. A preparation as claimed in claim 20, wherein the carnosine is present in a concentration of 0.01 to 1% by weight, based on the total weight of the preparation.

25. A preparation as claimed in claim 20, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.001 to 10% by weight, based on  
15 the total weight of the preparation.

26. A preparation as claimed in claim 20, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.005 to 8% by weight, based on the total weight of the preparation.

20 27. A preparation as claimed in claim 20, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.05 to 5% by weight, based on the total weight of the preparation.

25 28. A cosmetic or dermatological preparation comprising an active ingredient combination of at least one bioquinone and 8-hexadecene-1,16-dicarboxylic acid.

29. A preparation as claimed in claim 28, comprising a plant or animal extract comprising at least one bioquinone.

30. A preparation as claimed in claim 28, wherein the at least one bioquinone includes coenzyme Q10.

5        31. A preparation as claimed in claim 30, wherein the coenzyme Q10 is present in a concentration of 0.000001 to 5% by weight, based on the total weight of the preparation.

10       32. A preparation as claimed in claim 30, wherein the coenzyme Q10 is present in a concentration of 0.01 to 1% by weight, based on the total weight of the preparation.

15       33. A preparation as claimed in claim 30, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

20       34. A preparation as claimed in claim 30, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.005 to 8% by weight, based on the total weight of the preparation.

25       35. A preparation as claimed in claim 30, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.05 to 5% by weight, based on the total weight of the preparation.

30       36. A cosmetic or dermatological preparation comprising at least one active ingredient selected from the group consisting of 3-[4-hydroxyphenylsulfate ester]-2-aminopropionic acid, 3-[3-hydroxyphenylsulfate ester]-2-aminopropionic acid (tyrosine O-sulfate ester), sulfonic esters thereof, phosphate esters thereof, and derivatives thereof, in combination with 8-hexadecene-1,16-dicarboxylic acid.

37. A preparation as claimed in claim 36, comprising a plant or animal extract comprising the at least one active ingredient.

5 38. A preparation as claimed in claim 36, wherein the at least one active ingredient is selected from the group consisting of 3-[3-hydroxyphenylsulfate ester]-2-aminopropionic acid (tyrosine O-sulfate ester), sulfonic esters thereof, phosphate esters thereof, and derivatives thereof,.

10 39. A preparation as claimed in claim 36, comprising effective amounts of said at least one active ingredient and of said 8-hexadecene-1,16-dicarboxylic acid.

15 40. A preparation as claimed in claim 39, wherein the at least one active ingredient is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

41. A preparation as claimed in claim 39, wherein the at least one active ingredient is present in a concentration of 0.01 to 5% by weight, based on the total weight of the preparation.

20 42. A preparation as claimed in claim 39, wherein the at least one active ingredient is present in a concentration of 0.1 to 2.0% by weight, based on the total weight of the preparation.

25 43. A preparation as claimed in claim 39, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.001 to 10% by weight, based on the total weight of the preparation.

44. A preparation as claimed in claim 39, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.005 to 8% by weight, based on the total weight of the preparation.

5        45. A preparation as claimed in claim 39, wherein the 8-hexadecene-1,16-dicarboxylic acid is present in a concentration of 0.05 to 5% by weight, based on the total weight of the preparation.

10       46. A method for treating unwanted pigmentation of the skin or pigmentation disorders, comprising applying to the skin a cosmetic or dermatological preparation comprising an active ingredient combination of at least one antioxidant or a derivative thereof and 8-hexadecene-1,16-dicarboxylic acid.

15       47. A method as claimed in claim 46, wherein the at least one antioxidant includes  $\alpha$ -lipoic acid.

48. A method as claimed in claim 46, wherein the at least one antioxidant includes carnosine.

20       49. A method as claimed in claim 46, wherein the at least one antioxidant includes at least one bioquinone.

25       50. A method as claimed in claim 46, wherein the at least one antioxidant includes at least one active ingredient selected from the group consisting of 3-[4-hydroxyphenylsulfate ester]-2-aminopropionic acid, 3-[3-hydroxyphenylsulfate ester]-2-aminopropionic acid (tyrosine O-sulfate ester), sulfonic esters thereof, phosphate esters thereof, and derivatives thereof.

51. A method for treating unwanted pigmentation of the hair or for lightening the hair, comprising applying to the hair a cosmetic or dermatological preparation comprising an active ingredient combination of at least one antioxidant or a derivative thereof and 8-hexadecene-1,16-dicarboxylic acid.

5

52. A method as claimed in claim 51, wherein the at least one antioxidant includes  $\alpha$ -lipoic acid.

53. A method as claimed in claim 51, wherein the at least one antioxidant includes carnosine.

10

54. A method as claimed in claim 51, wherein the at least one antioxidant includes at least one bioquinone.

55. A method as claimed in claim 51, wherein the at least one antioxidant includes at least one active ingredient selected from the group consisting of 3-[4-hydroxyphenylsulfate ester]-2-aminopropionic acid, 3-[3-hydroxyphenylsulfate ester]-2-aminopropionic acid (tyrosine O-sulfate ester), sulfonic esters thereof, phosphate esters thereof, and derivatives thereof.

15

20